

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1-12. (Canceled)

13. (New) A data processing apparatus, comprising:

a processor that performs a plurality of processes on data using a plurality of processing components;

a component database that stores:

a plurality of processing components, each of which performs a predetermined process;

a plurality of type determining functions, corresponding to the plurality of processing components; and

a plurality of type determining function entries that refer to the plurality of type determining functions; and

a determiner that searches through the plurality of processing components by reading at least one of the plurality of type determining function entries, reading at least one type determining function referred to by the at least one read type determining function entry, and determining whether a stored processing component corresponding to the at least one read type determining function is suitable for use as a processing component.

14. (New) The data processing apparatus according to claim 13, wherein said determiner reads the plurality of type determining function entries sequentially every time said determiner searches through the plurality of processing components.

15. (New) The data processing apparatus according to claim 13, wherein said component database stores each of the plurality of type determining functions within a corresponding stored processing component.

16. (New) The data processing apparatus according to claim 13, wherein each of the plurality of type determining function entries is associated with one of the plurality of stored processing components.

17. (New) The data processing apparatus according to claim 13, wherein said processor selects a stored processing component suitable for use as a processing component for a next processing by reading file information of data to be processed, and providing the file information to said determiner.

18. (New) The data processing apparatus according to claim 13, further comprising:

a component configuration database that stores configuration patterns of stored processing components; and

a configuration pattern searcher that searches the stored configuration patterns for a configuration pattern suitable for a process to be performed, based on file information of data to be processed.

19. (New) The data processing apparatus according to claim 18, further comprising a downloader configured to connect, via a network, to a database server which stores processing components, wherein said downloader acquires a necessary processing component from said database server when it is determined that the component configuration database does not include a configuration pattern suitable for the process to be performed.

20. (New) The data processing apparatus according to claim 19, wherein said downloader acquires a necessary processing component from a recording medium that is connected to said data processing apparatus and that stores processing components.

21. (New) The data processing apparatus according to claim 19, wherein when said downloader acquires a processing component, said downloader stores the acquired processing component in said component database, and said component configuration database stores information that indicates a storage destination of the acquired processing component stored in said component database.

22. (New) A data processing method, comprising:

storing, in a component database:

a plurality of processing components, each of which performs a predetermined process;

a plurality of type determining functions, corresponding to respective ones of the plurality of processing components; and

a plurality of type determining function entries that refer to the plurality of type determining functions;

searching through the plurality of processing components by reading at least one of the plurality of type determining function entries, reading at least one type determining function referred to by the at least one read type determining function entry, and determining whether a stored processing component corresponding to the at least one read type determining function is suitable for use as a processing component; and

performing at least one process on data using at least one of the plurality of processing components.

23. (New) The data processing method according to claim 22, wherein each of the plurality of type determining function entries is associated with one of the plurality of stored processing components.

24. (New) The data processing method according to claim 22, further comprising reading file information of data to be processed, wherein the searching is based on the read file information.

25. (New) The data processing method according to claim 22, further comprising:

storing, in a component configuration database, configuration patterns of stored processing components; and

searching the stored configuration patterns for a configuration pattern suitable for a process to be performed, based on file information of data to be processed.

26. (New) The data processing method according to claim 22, further comprising, when it is determined that the component configuration database does not include a configuration pattern suitable for the process to be performed:

connecting, via a network, to a database server which stores processing components; and

acquiring a necessary processing component from the database server.

27. (New) The data processing method according to claim 26, further comprising, when the necessary processing component is acquired:

storing, in the component database, the acquired processing component;
and

storing, in the component configuration database, information indicating a storage destination of the acquired processing component in the component database.

28. (New) A computer-readable medium which stores a data processing program, the program comprising:

storing code that stores, in a component database:

a plurality of processing components, each of which performs a predetermined process;

a plurality of type determining functions, respectively corresponding to the plurality of processing components; and

a plurality of type determining function entries that refer to the plurality of type determining functions;

searching code that searches through the plurality of processing components by reading at least one of the plurality of type determining function entries, reading at least one type determining function referred to by the at least one read type determining function entry, and determining whether a stored processing component corresponding to the at least one read type determining function is suitable for use as a processing component; and

processing code that performs at least one process on data using at least one of the plurality of processing components.

29. (New) The computer-readable medium according to claim 28, wherein the program further comprises file information reading code that reads file information of data to be processed, wherein the searching code searches based on the read file information.

30. (New) The computer-readable medium according to claim 28, wherein the program further comprises:

storing code that stores, in a component configuration database, configuration patterns of stored processing components; and

searching code that searches the stored configuration patterns for a configuration pattern suitable for a process to be performed, based on file information of data to be processed.

31. (New) The computer-readable medium according to claim 28, wherein the program further comprises:

connecting code that connects, via a network, to a database server which stores processing components, when it is determined that the component configuration database does not include a configuration pattern suitable for the process to be performed; and

acquiring code that acquires a necessary processing component from the database server.

32. (New) The computer-readable medium according to claim 31, wherein the program further comprises:

storing code that stores, in the component database, the acquired processing component; and

storing code that stores, in the component configuration database, information indicating a storage destination of the acquired processing component in the component database.